

## RAISING MUSHROOMS IN A CELLAR.

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IN 1897 and 1898 I undertook to cultivate mushrooms in my cellar. I had good success; and it has been suggested that my experience may be helpful to others who are desirous of making experiments in this direction.

My first bed was six feet long by four feet wide. The materials used in its construction were two barrels of horse manure, two and one half barrels of fresh loam and three bricks of mushroom spawn. The bed was constructed as follows: The manure, which had been carefully gathered so as to be as free as possible from straw, was spread out in the basement of a barn near by, and allowed to "heat," or ferment. Each day it was turned and left in form of a long "windrow." This was kept up till the man reported that the manure was nearly through heating. It was then brought into the cellar, after having been gone over once more to get out the last pieces of straw, and mixed up carefully with its own bulk of loam, care being taken that no lumps should remain, and that the whole mixture should be smooth and uniform. A layer of this mixture was then laid on the cement floor of the cellar and tramped or beaten into a firm mass about three inches deep. Another layer was now put down and the process continued till the bed was about ten inches deep. After standing for a few hours the bed had, as I found by making a hole down through it, about the same temperature as my hand, and this is about the right temperature for spawning. The second year I had to wait a day before the temperature came down to this point, but I am sure I could manage, with my past experience, to judge the condition of the manure in the windrow so that when it was put in the bed it would be ready to spawn at once, and I think anyone could. To spawn the bed, the spawn was cut into pieces about the size of a small egg, and each piece was put into a hole about four inches deep, and carefully covered with the manure-loam mixture. The holes were about eight inches apart as nearly as I can remember, at all events there were about sixty holes. I left the bed in this condition over night. The next day I put on four inches of loam and beat it down into a fairly compact form — not nearly so compact, however, as the underpart of the bed.

This was all the attention I gave it, except that once in a while during the next six weeks I moistened the surface with water at about the temperature of my hand, using a watering pot, and trying to use about as much water as would fall on that amount of surface in a moderate summer shower. I cannot say how many times this was done for I kept no notes, but not more than three or four at the most.

Mushrooms appeared in about six and a half weeks and the bed continued to bear for about four weeks. At the end of that time I put on four inches more loam, when the bed started up again and bore for about a fortnight longer.

I cannot give any figures as to the quantity of mushrooms gathered. It may seem strange that no notes were kept, but the fact is I did not enter upon the undertaking in any scientific way, and was not disposed to give much care or thought to it; but I thought it would be worth while to see whether the cultivation of mushrooms in a cellar was a difficult or an easy process. If it had proved difficult I should have dropped it at once. All I can say, then, is that there were mushrooms every day and sometimes they were gathered three times a day. They were large, fleshy, and of good flavor. No trace of any other kind of fungus appeared from first to last.

As to the difficulty, I never encountered it. Of course it may be I was especially favored by good fortune, but the fact that the same processes repeated the next year yielded practically identical results seem to show that there is no difficulty about it, at least on a small scale. It is more than probable that when carried on continuously and on the large scale complications would arise, and I should hesitate myself to undertake it without much more careful study than I have ever given to the subject.

The question is often raised whether the odor from the bed is noticeable. In my experiments there was no odor whatever from first to last. None could be detected even at the surface of the finished bed except the odor of mushrooms after the bed began bearing.

CAMBRIDGE, MASSACHUSETTS.

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THE YELLOW-FRUITED FORM OF *ILEX OPACA* AT NEW BEDFORD, MASSACHUSETTS.— Attention was called in *RHODORA* of December, 1900, to a new station for the rare yellow-fruited *Ilex verticillata*, Gray. During the recent holiday season a collector of evergreens